

STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No. 01-AFC-21
Application for Certification of	)	
The Tesla Power Project	)	STAFF TESTIMONY IN RESPONSE
_____	)	TO COMMITTEE QUESTIONS

As ordered by the Hearing Officer at the September 18, 2003, evidentiary hearings, the Energy Commission Staff ("Staff") submits its responses to the questions posed by the Hearing Officer at the September hearings. Staff's responses are attached. Staff requests that the attached responses be marked as Exhibit 124. Staff additionally requests that the Transmission System Reliability: Tesla Power Project (TPP), Testimony of Donna Jordan, docketed on May 7, 2003, be marked as Exhibit 125, and be admitted into evidence by declaration. Transmission System Engineering was not a contested topic in the proceeding. Ms. Jordan's subsequent declaration, dated September 8, 2003, confirming the conclusions set forth in her initial testimony of May 5, 2003, (Exh. 125) were made part of the record on September 10, 2003.

Because the Hearing Officer's questions call for factual information, Staff assumes the information, as well as any other factual information offered by other parties in response to the Hearing Officer's questions, will be entered into the evidentiary record as testimony and subject to cross-examination. Doing so will allow the factual information to become part of the evidentiary record on which the Committee may properly rely to make its factual findings and reach its conclusions. (Cal. Code Regs., tit. 20, § 1751.) Allowing for cross-examination will help establish the accuracy of the parties' responses.

For these reasons, Staff is ready to sponsor its responses as supplemental testimony into the record and be subject to cross-examination if requested by other parties. Staff's responses are, therefore, attached with written declarations from each sponsoring witness.

Respectfully submitted,

Dated: November 3, 2003

\_\_\_\_\_  
DARCIE L. HOUCK  
Counsel for Energy Commission Staff

**TESLA POWER PROJECT  
RESPONSE TO COMMITTEE REQUESTS  
FOR TESLA POWER PROJECT  
(01-AFC-5)**

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## SUMMARY OF AMENDED SECTIONS

This table provides the page and technical section in the Final Staff Assessment (FSA) where language corrections and supplemental information has been provided.

Subject Area	Page Number
Air Quality	4.1.1 through 4.1.82
Biological Resources	4.2-54, through 4.2-56
Land Use	4.5-22, 4.5-23
Hazardous Materials Management	4.5-20, new
Public Health	4.7-19
Traffic & Transportation	4.9-18 through 4.9-21
Worker Safety & Fire Protection	4.14-1
Facility Design	5.1-1 Through 5.1-22

**Note:** The technical sections identified in the table above may have several changes when compared to the original FSA. The selected text in this document is intended to replace or provide additional information in the FSA.

# AIR QUALITY

## Supplemental Testimony of Brewster Birdsall

**BACKGROUND:** Staff originally created and recommended Condition of Certification AQ-SC7 in the Final Staff Assessment because staff found that compliance with Bay Area Air Quality Management District (BAAQMD) requirements would not sufficiently reduce the potential project impacts to a level of insignificance. The applicant proposed to use an Air Quality Mitigation Agreement (AQMA) developed with the San Joaquin Valley Air Pollution Control District (SJVAPCD) to supplement the mitigation provided by the BAAQMD Emission Reduction Credits (ERCs). Throughout the proceeding, staff has been concerned that the AQMA may not be fully effective, and has strived to establish a measure of performance that would ensure full mitigation of the project. This concern led staff to develop an emission reduction target, which could be satisfied through the AQMA or some other mitigation scheme such as retiring SJVAPCD ERCs.

The goal of AQ-SC7 is to ensure that project emissions do not exceed the amount of reductions provided to the San Joaquin Valley, either by BAAQMD ERCs or by local mitigation projects such as those funded with the AQMA. This supplement provides a new version of AQ-SC7 developed with participation from the applicant. The new version of AQ-SC7 would continue to achieve full mitigation while allowing substantial new flexibility to the applicant. Staff believes that the revised AQ-SC7 is supported by technical information that is in the record of this proceeding. The revised AQ-SC7 recommended by staff is attached.

### FUTURE EMISSION LIMITS

After the Evidentiary Hearing, the applicant created a revised version of AQ-SC7 with “future” seasonal emission limits. These emission limits would eventually be used to constrain the power plant operations so that no mitigation would be needed beyond the BAAQMD ERCs plus whatever reductions would occur with the AQMA. As emission reductions occur over time using the AQMA, the seasonal limits would be raised and would eventually be removed when the full mitigation target is satisfied.

Staff views the suggested seasonal limits favorably because they constrain the source of pollution. As in the FSA, staff continues to prefer that full mitigation under AQ-SC7 be completed before the start of commercial operation, but operation within the prescribed limits would also be acceptable until full mitigation is realized. The revised AQ-SC7 would allow partial operation within the prescribed limits while reductions related to the AQMA occur.

### TIMING OF THE AQMA REDUCTIONS

Emission reductions that occur through use of the AQMA fee by the SJVAPCD may occur slowly. The SJVAPCD must first identify mitigation projects, either by advertising availability of funds or by contacting operators of sources that are normally outside of SJVAPCD jurisdiction. The owner of the source then must apply for the funds, then order and receive the replacement equipment, and retire the original source. The timing of the reductions related to the AQMA continues to be a concern and a subject of debate. Staff expects the SJVAPCD to use the fee quickly and in the most effective manner, but how quickly the reductions might occur is speculative. The SJVAPCD would make the primary decisions on

when and where reductions would occur, depending somewhat on market demand for the funds. No party can guarantee the timing of the reductions.

Staff prefers that full mitigation be completed before the start of commercial operation. This would encourage the AQMA fee to be used quickly, and it would place the burden on the project owner to supply timely additional reductions if the AQMA did not achieve the targets of AQ-SC7. It may be advantageous to allow the SJVAPCD a certain amount of time to identify highly-effective mitigation projects.

To create some balance that allows partial project operation until the full mitigation occurs, staff recommends establishing emission limits similar to those developed by the applicant. Under staff's recommendation, the limits would apply for all plant operation until sufficient reductions are achieved to satisfy the targets. This approach ensures that project emissions would always be fully mitigated because there would never be more emissions than the level of mitigation.

## **SEMIANNUAL TARGET**

Staff's proposed mitigation in the FSA was developed on a seasonal basis with quarterly targets. The applicant has since requested that this be simplified to semiannual targets. As staff has illustrated in the FSA and at the hearings, air pollution problems in the San Joaquin Valley are highly seasonal, and there are benefits in maintaining seasonal targets for project mitigation. Converting quarterly targets to semiannual targets is acceptable to staff because it would still satisfy the basic goal of providing reductions during the time of the year when they would be most valuable. The new version of AQ-SC7 would still require PM<sub>10</sub> and SO<sub>x</sub> reductions in the winter and a majority of NO<sub>x</sub> and VOC reductions in the summer.

## **OPTIONS TO SATISFY THE TARGET**

Staff believes that additional flexibility needs to be provided for achieving the reductions required by AQ-SC7.

Reductions can occur as a result of the AQMA or other programs initiated by the Tesla project owner, as administered by other parties. During the Evidentiary Hearing, there was a proposal to fund an air quality improvement program administered by the City of Tracy. The City of Tracy would probably be able to respond well to local citizen involvement and it would have the capacity to identify uniquely local programs for emission reductions. As such, any reductions initiated by Tesla through the City of Tracy would be valuable as project mitigation.

Staff also continues to accept SJVAPCD ERC substitutions if the applicant chooses to obtain and surrender these credits. Staff believes that it provides another path for the applicant to meet the targets by eliminating the ability of future emission increases from new stationary sources in the area that might use the ERCs.

At the applicant's request, staff recommends allowing limited interseasonal trading to satisfy NO<sub>x</sub> mitigation targets in the winter. This means that surplus emission reductions obtained during ozone nonattainment quarters (Q2 and Q3) may be exchanged to satisfy the target in winter quarters (Q1 and Q4). Because this type of exchange would be consistent with

SJVAPCD Rule 2201 Section 4.13.8, and thus consistent with SJVAPCD planning strategy for achieving ozone attainment, staff believes that this flexibility would be useful as project mitigation.

The applicant has requested allowances for limited interpollutant trading to satisfy the PM10, SO<sub>x</sub>, and VOC targets. Staff does not object to the surplus emission reductions obtained of NO<sub>x</sub> or SO<sub>x</sub> may be traded to satisfy the target of PM10, and surplus reductions of NO<sub>x</sub> may be traded to satisfy the targets of VOC or SO<sub>x</sub>. Inter-pollutant reductions must be confined to one season and would not be counted twice. This means that if 22 tons of NO<sub>x</sub> reductions occur in the winter, they may be applied to the NO<sub>x</sub> winter target, or they may be exchanged to satisfy a target of 10 tons PM10 in the winter (2.2-to-1.0 ratio) or a target 22 tons NO<sub>x</sub> in the summer, but not both.

Interpollutant trading ratios are highly site-specific, depending on ambient chemistry and the local source inventory. In analyses for other nearby cases, the SJVAPCD showed that reducing NO<sub>x</sub> (2.2-to-1.0) or SO<sub>x</sub> (1.2-to-1.0) emissions could provide reductions in ambient PM10 concentrations. The NO<sub>x</sub>-for-PM10 ratio was used by the SJVAPCD in the La Paloma Generating Project, Kern County (98-AFC-2), and it is consistent with the more-recent SJVAPCD 2003 PM10 Plan, which indicates that throughout the air basin the average NO<sub>x</sub> ratio would be about 1.4-to-1.0, with higher NO<sub>x</sub>-for-PM10 ratios expected in the northern portions of the San Joaquin Valley. The SO<sub>x</sub>-for-PM10 ratio was used by the SJVAPCD in the Modesto Electric Generation Project, in nearby Ripon, San Joaquin County (03-SPPE-1). Providing reductions of NO<sub>x</sub> for VOC at 1-to-1 would be acceptable because NO<sub>x</sub> reductions are typically found by the SJVAPCD to be more effective at reducing secondary ozone than VOC reductions. Providing reductions of NO<sub>x</sub> for SO<sub>2</sub> at 2-to-1 would also be acceptable because the unit mass of sulfur-containing particulate matter (as ammonium sulfate, (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>) is usually roughly two times that of nitrate particulate (as ammonium nitrate, NH<sub>4</sub>NO<sub>3</sub>).

Based on this information, staff believes that the ratios are consistent with past SJVAPCD analyses for other projects permitted in the San Joaquin Valley, and that the ratios would be consistent with SJVAPCD Rule 2201 Section 4.13.3. Therefore, they would be consistent with SJVAPCD planning strategies and would be acceptable in the mitigation scheme. Reporting requirements in the condition would require a semiannual report that demonstrates sufficient reductions have been achieved.

## **SUMMARY**

Mitigation must be in place for project operation at all times. BAAQMD ERCs would provide part of that mitigation before commencing operation, and AQ-SC7 would provide the remainder. By establishing a measure of performance for the SJVAPCD AQMA, AQ-SC7 goes beyond the BAAQMD requirements to ensure valuable local emission reductions. The new version of AQ-SC7 continues to depend on the AQMA. It also includes new limits to allow partial operation before AQMA reductions are fully realized, simplified targets, new ways to achieve the targets, and the option to use either an agreement with the City of Tracy or additional retired ERCs, to ensure that CEQA impacts are reduced to a level of insignificance.

**AQ-SC7** The project owner shall limit facility emissions equivalent to the amounts shown in Table AQ-SC7A. The seasonal emission limits in Table AQ-SC7A shall be increased, subject to CPM approval, to reflect all emission reductions obtained under this condition by the owner/operator on a ton for ton basis, up to a maximum increase in the amount of the targets shown in Table AQ-SC7B. Seasonal emission limits shall be updated to reflect the project owner/operator's progress in securing emission reductions. Notwithstanding the above, the project owner/operator shall also comply with all emission rate limits set forth in Conditions AQ-1 to AQ-62.

**TABLE AQ-SC7A  
SEASONAL EMISSION LIMITS<sup>1</sup>**

<i>Seasonal Period</i>	<i>Quarter</i>	<i>NO<sub>x</sub> (ton)</i>	<i>PM10 (ton)</i>	<i>SO<sub>x</sub> (ton)</i>	<i>VOC (ton)</i>
October through March	Q1&Q4	103.1	48.7	7.4	--
April through September	Q2&Q3	95.8	--	--	19.9

<sup>1</sup>The seasonal emission limits shown above are base amounts assuming no emission reductions are obtained by the owner/operator. Seasonal emission limits shall be increased by the value of the emission reductions actually achieved for each seasonal period. (For example, if 10 ton of NO<sub>x</sub> reduction is obtained in Q1/Q4, the October through March seasonal emission limit would be increased as follows: 103.1 ton +10 ton = 113.1 ton).

<sup>2</sup>-- denotes no seasonal limit for the period

**TABLE AQ-SC7B  
EMISSION REDUCTION TARGETS**

<i>Seasonal Period</i>	<i>Quarter</i>	<i>NO<sub>x</sub> (ton)</i>	<i>PM10 (ton)</i>	<i>SO<sub>x</sub> (ton)</i>	<i>VOC (ton)</i>
October through March	Q1&Q4	21.9	46.3	7.4	--
April through September	Q2&Q3	29.1	--	--	10.3

The emissions reductions to be used by the project owner/operator to increase the Seasonal Emission Limits set forth in Table AQ-SC7A and satisfy the targets in Table AQ-SC7B shall be obtained through an emission reduction program administered by the San Joaquin Valley Air Pollution Control District and/or an air quality improvement program administered by the City of Tracy, as follows.

- a) The project owner/operator may use the Air Quality Mitigation Agreement and/or an air quality improvement program between FPL Energy and the City of Tracy, administered by the City of Tracy, as a means to achieve some or all of the emission reductions. The project owner/operator shall provide to the CPM for review and approval a copy of an initial plan for allocating the funds or identification of the method of obtaining the emission reduction targets. The project owner/operator shall also submit reports for CPM review and approval identifying the emission reductions achieved to-date.
- b) The project owner/operator may acquire and surrender to the SJVAPCD emission reduction credits to achieve some or all of the emission reductions to increase seasonal emission limits.
- c) The project owner/operator shall use its best efforts to obtain emission reductions in the northern region of the San Joaquin Valley. If, despite demonstrated best efforts, it is not feasible to obtain the requisite emission reductions within the

northern region of the San Joaquin Valley, emission reductions from outside the northern region of the San Joaquin Valley will be permitted, subject to CPM review and approval.

- d) NO<sub>x</sub> emission reductions obtained from the period April through September (Quarters 2 & 3) may be used to increase NO<sub>x</sub> seasonal emission limits during either seasonal period.
- e) Interpollutant emission reductions shall be permitted under this condition at the ratios specified below:
  - NO<sub>x</sub> reductions for PM<sub>10</sub> emissions: 2.2:1
  - SO<sub>2</sub> reductions for PM<sub>10</sub> emissions: 1.2:1
  - NO<sub>x</sub> reductions for VOC emissions: 1:1
  - NO<sub>x</sub> reductions for SO<sub>2</sub> emissions: 2:1
- f) No double or multiple counting of interpollutant reductions shall be allowed.

The seasonal emission limits set forth in Table AQ-SC7A shall be applicable commencing upon the start of first combustion turbine fire. Once the project owner/operator has obtained the full amounts of the emission reduction targets identified in Table AQ-SC7B to the satisfaction of the CPM the seasonal emission limits specified above will no longer apply.

Emission reduction credits from years prior to 1990 (pre-1990 credits) shall only be allowed with concurrence from U.S. EPA. The northern region of the San Joaquin Valley is defined as San Joaquin, Stanislaus, and Merced Counties.

**Verification:** Sixty (60) days after the delivery of the first Combustion Turbine Generator (CTG) to the project site, the project owner/operator shall provide evidence to the CPM of having provided the funds identified in the Air Quality Mitigation Agreement to the San Joaquin Valley Air Pollution Control District (SJVAPCD) along with the initial plan for allocating the funds or identifying alternate emission reductions. After first combustion turbine firing, the project owner/operator shall provide the CPM with seasonal semi-annual reports (by January 30 and July 30 of each year of operation) documenting compliance with the emission limits of this condition. The semi-annual report shall list the tons of emission reductions obtained in the San Joaquin Valley, the date the reduction occurred, the method used to secure these reductions, the location of emission reductions, and the running total emission reduction credits secured and surrendered, if any. The report shall account for any interseasonal or interpollutant credit applied under AQ-SC7(d) or (e). Emissions data to verify compliance with each seasonal cap shall be derived from data submitted as required by Condition AQ-13 or Condition AQ-40. Each semi-annual seasonal report shall include an updated determination of applicable facility seasonal emission limits by revising Table AQ-SC7A.



# BIOLOGICAL RESOURCES

## Supplemental Testimony of Andrea Erichsen

**BACKGROUND:** In response to the Committee's request during evidentiary hearings on September 11, 2003 (transcript from September 11, 2003, discussion on pages 111-114), Staff has provided the following clarification of proposed Condition of Certification **BIO-5** (refer to the FSA supplement, CEC 2003). Proposed changes to BIO-5 are underscored.

### **Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP)**

**BIO-5** The Project Owner shall submit to the CPM for review and approval a copy of the BRMIMP and shall implement the measures identified in the approved BRMIMP. Any changes to the approved BRMIMP must also be approved by the CPM in consultation with CDFG, the USFWS and appropriate agencies to insure no conflicts exist.

The final BRMIMP shall identify:

1. All biological resources mitigation, monitoring, and compliance measures proposed and agreed to by the Project Owner;
2. All Conditions of Certification identified in the Commission's Final Decision related to biological resources;
3. All biological resource mitigation, monitoring and compliance measures required in federal agency terms and conditions, such as those provided in the USFWS Biological Opinion ;
4. All biological resources mitigation, monitoring and compliance measures required in other state agency terms and conditions, such as those provided in the CDFG Take Permit and Streambed Alteration Agreement and ACOE permits;
5. All biological resources mitigation, monitoring and compliance measures required in local agency permits, such as site grading and landscaping requirements;
6. All sensitive biological resources to be impacted, avoided, or mitigated by project construction, operation and closure;
7. All required mitigation measures for each sensitive biological resource;
8. Required habitat compensation strategy, including provisions for acquisition, enhancement, and management for any temporary and permanent loss of sensitive biological resources;
9. A detailed description of measures that will be taken to avoid or mitigate temporary disturbances from construction activities;
10. All locations on a map, at an approved scale, of sensitive biological resource areas subject to disturbance and areas requiring temporary protection and avoidance during construction;
11. Aerial photographs, at an approved scale, of all areas to be disturbed during project construction activities - one set collected prior to any site or related facilities mobilization disturbance and one set collected subsequent to completion

of mitigation measures. Include planned timing of aerial photography and a description of why times were chosen;

12. Duration for each type of monitoring and a description of monitoring methodologies and frequency;

13. Performance standards to be used to help decide if and when all proposed mitigation is or is not successful. For example, performance standards may cover, but are not limited to, the following and will be fully developed during completion of the BRMIMP, the Habitat Management Plan, and in consultation with the USFWS, CDFG, and the third party habitat management entity:

- a. Quantitative and qualitative measures of habitat quality (i.e. percent vegetative cover, target/percent species composition, vegetation height and density) required to compensate for impacts to San Joaquin kit fox, burrowing owl, and California tiger salamander;
- b. Measurable and robust habitat quality characteristics to evaluate habitats intended to support special status species;
- c. Habitat restoration criteria for areas used temporarily during construction;
- d. Quantitative and qualitative criteria to evaluate the success of riparian restoration along Paterson Run Creek as part of the landscaping plan;
- e. Success/failure standards and monitoring procedures for all mitigation monitoring, including that related to San Joaquin kit fox escape dens, the presence of species, and mortality of birds due to electrocution, collisions, and other causes of wildlife mortality;
- f. Quantitative criteria to be used to monitor impacts of grazing on vegetation providing habitat to special status species.

14. All performance standards and remedial measures to be implemented if performance standards are not accomplished during time periods to be developed and specified for each item under number 13 above. Remedial measures may cover, but are not limited to the following and will be fully developed during completion of the BRMIMP and in consultation with the USFWS, CDFG, and the third party habitat management entity:

- a. The Habitat Management Plan will include such remedial measures to address problems arising that could affect the successful compensation and funding for restoration and management of compensation lands;
- b. Landscape management measures in the event that restoration plantings within Paterson Run Creek do not survive or meet success criteria;
- c. Remedial measures for the San Joaquin kit fox escape dens if monitoring determines that they are causing problems for San Joaquin kit fox or are attracting red fox or coyote; and

d. Protocols and measures to reduce documented and unexpected wildlife mortality due to project construction, bird collisions with project-related structures, bird electrocutions, road kill, or other project-related mortality.

15. A discussion of biological resources related facility closure measures;
16. A description of the third party habitat management entity, a copy of the habitat management plan, and a copy of the contract between the Project Owner and that third party;
17. A process for proposing plan modifications to the CPM and appropriate agencies for review and approval;
18. A copy of all permits attained for biological resources; and
19. Results of the fall 2003 big tarplant field surveys and recommended mitigation, if necessary.

**Verification:** At least 60 days prior to start of any site or related facility mobilization activities, the Project Owner shall provide the CPM with two copies of the BRMIMP for this project, and provide copies to the CDFG and the USFWS.

The CPM, in consultation with the CDFG, the USFWS and any other appropriate agencies, will determine the BRMIMP's acceptability within 45 days of receipt.

The Project Owner shall notify the CPM no less than 5 working days before implementing any modifications to the approved BRMIMP to obtain CPM approval.

Within 30 days after completion of project construction, the Project Owner shall provide to the CPM, for review and approval, a written report identifying which items of the BRMIMP have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which mitigation and monitoring items are still outstanding.

If there are any permits for biological resources that have not yet been received when the BRMIMP is first submitted, these permits shall be submitted to the CPM, USFWS, and CDFG as addendum to the BRMIMP within 10 days of their receipt.

## **FACILITY DESIGN**

### **Supplemental Testimony of Steve Baker**

**BACKGROUND:** In response to the Committee's request for clarification on the reference to the "1998 California Building Code (CBC)".

**RESPONSE:** In the Final Staff Assessment (FSA) where the text refers to the 1998 CBC, all sections with that reference should now read.... "2001 California Building Standard Code (CBSC)".

# HAZARDOUS MATERIALS MANAGEMENT

## Supplemental Testimony of Dr. Alvin Greenberg

**BACKGROUND:** As discussed at the September 10, 2003 evidentiary hearing, staff offers the following response and suggested language.

### **Delivery of Hazardous Materials during Periods of Fog:**

During the evidentiary hearing of September 10, 2003, Hearing Officer Geffer requested staff to prepare a Condition of Certification addressing the delivery of hazardous materials during periods of fog. Part of the rationale as stated by intervenor Bob Sarvey is that the South Schulte development will be located very close (within 1000 feet) of the hazmat transportation route along Mountain House Parkway. Mr. Sarvey's representation of the location of the South Schulte Project is incorrect. According to the description listed in the Staff Assessment for the Tracy Peaker Project (a document cited by Mr. Sarvey), telephone conversations with Tracy city planners Bill Dean and Alan Bell (City of Tracy 2003a and 2003b), and review of maps of the project (City of Tracy 2003c), the South Schulte Specific Plan will be bounded on the north by Schulte Road and on the west by the Delta-Mendota Canal. As Staff stated in its oral testimony, it would not extend as far west as the Mountain House Parkway. It would come no closer than ~2 1/8 miles to the transportation route. The closest it would come to the TPP site is ~4 miles (See **Figure 1** attached).

Staff is also aware that fog occurs in the general area of the project site during the period from November through April. The National Weather Service has no specific records of fog in the Tracy area but does have records of fog in the Stockton area which averages 42 days per year of fog with a visibility of \_ mile or less (NWS 2003a and 2003b). No records of dense fog (defined as visibility of less than 1/8 mile; 660 feet; NWS 2003c) exist for the Tracy or Stockton area. In my view, dense fog is the issue in that it has the potential to adversely affect driving; the Caltrans web site contains warnings about fog in the Central Valley where visibility drops to less than 500 feet (Caltrans 2003). "Normal" fog poses no substantially increased risk of a motor vehicle accident when visibility is \_ of a mile or greater (1320 feet or approximately 2 long city blocks).

Finally, none of the conditions which required a Condition of Certification restricting delivery of hazardous materials for other projects East Altamont Energy Center, SMUD Cosumnes, and Inland Empire Energy Center exists for the Tesla project. In the East Altamont Energy Center case, anhydrous ammonia was proposed for use and thus special precautions were warranted. In the SMUD Cosumnes case, the road was very narrow with no shoulder, a school was located directly on the road, and thus vehicles transporting more than 1000 gallons of hazardous materials needed an escort if fog existed. In the Inland Empire Energy Center case, no fog restrictions were proposed but time-of-day restrictions were proposed to avoid hazmat deliveries during periods when children were walking to and from school. None of these conditions exist along the 4.3-mile route from I-205 to the TPP site.

Therefore, based upon the shortness of the transportation route, the fact that this is a truck route, the low incidence of dense fog in the area, the lack of a narrow roadway, the lack of schools or other sensitive receptors (as defined by OEHHA) along the route, and the fact that the nearest planned residential neighborhood would be located no closer than 2 1/8 miles

from the route, a condition of certification addressing fog along the transportation route is not necessary or justifiable.

If the Committee believes there is substantial evidence in the record to support a restriction on the delivery of hazardous materials in the fog, staff is providing language that may be considered in the PMPD to support a restriction on the delivery of hazardous materials in the fog.

**HAZ-XXX** The project owner shall direct all vendors delivering any hazardous material solution in an amount equal to or greater than 1000 gallons to the site during the months of November through April to verify that dense fog conditions do not exist along state or county roads used for the delivery by calling the CALTRANS Highway Information Network (800-427-7623) prior to commencing delivery. If dense fog conditions exist, then delivery to the site shall be postponed until such time that dense fog conditions have abated. Alternatively, if dense fog conditions exist, the project owner shall ensure that deliveries subject to this condition are escorted from Interstate 205 to the facility by a lead vehicle equipped with fog lights, that both vehicles are equipped with radios to provide communication between the lead vehicle and the tanker truck, and that both vehicles have their headlights on at all times when traversing the route from Interstate 205 to the facility.

**Verification:** At least 30 days prior to the initial delivery of any hazardous material solution in an amount equal to or greater than 1000 gallons, the project owner shall certify by letter to the CPM that the required hazardous material transportation dense fog restriction program is implemented.

### **Transportation of Hazardous Materials to the TPP:**

The transportation of hazardous materials to the proposed TPP site would follow two alternative routes once leaving the interstate highway. One route would be less than three miles after leaving the interstate and the other would be less than five miles after leaving the interstate. Staff initially did not find it necessary to identify one route as preferable over the other and thus restrict the delivery of hazardous materials to only this route. However, due to concerns raised by the public and a request by the Hearing Officer at the September 10, 2003 Evidentiary Hearings; staff has reevaluated the need for route restrictions. Staff and the applicant stated agreement to using only one specified route for hazardous materials deliveries: Interstate-205 to Mountain House Parkway to Patterson Pass Road to Midway Road and then into the project site, a total of just under five miles. This route is preferable to the alternative route in that it is more direct (avoids back-tracking), the route is on roads with less curves (the other route is entirely on rural roads with curves and no traffic signals), the exit from the interstate highway is more direct, and the preferred route is a truck-route used by many large trucks delivering to warehouses in the Mountain House Parkway-Schulte Road area. Therefore, staff proposes Condition of Certification (**HAZ-12**) that requires the applicant to inform hazardous material vendors to use only the approved transportation route and obtain approval from the CPM if an alternate route is requested.

## CONDITIONS OF CERTIFICATION

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**HAZ-12** The project owner shall direct all vendors delivering any hazardous materials to, or hazardous wastes away from, the site to use only the route approved by the CPM (Interstate 205 to Mountain House Parkway to Patterson Pass Road to Midway Road to/from the north, or Interstate 580 to Patterson Pass Road to/from the west or south and then into the facility). An alternate route may be used following approval by the CPM.

**Verification:** At least 60 days prior to receipt of any hazardous materials on site, the project owner shall submit to the CPM for review and approval, a copy of the letter to be mailed to the vendors. The letter shall state the required transportation route limitation.

## REFERENCES

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California Highway Patrol (CHP) 2003. Fax from the Information Services Unit regarding number of collisions with and without fog on Interstate 205 in San Joaquin County, September 18, 2003.

City of Tracy Planning Department 2003a. Personal communications with Bill Dean, September 15, 2003.

City of Tracy Planning Department 2003b. Personal communications with Senior Planner Alan Bell, September 15, 2003.

City of Tracy Planning Department 2003c. Fax from Senior Planner Alan Bell containing maps of South Schulte Specific Plan and Tracy Hills Specific Plan, dated September 16, 2003.

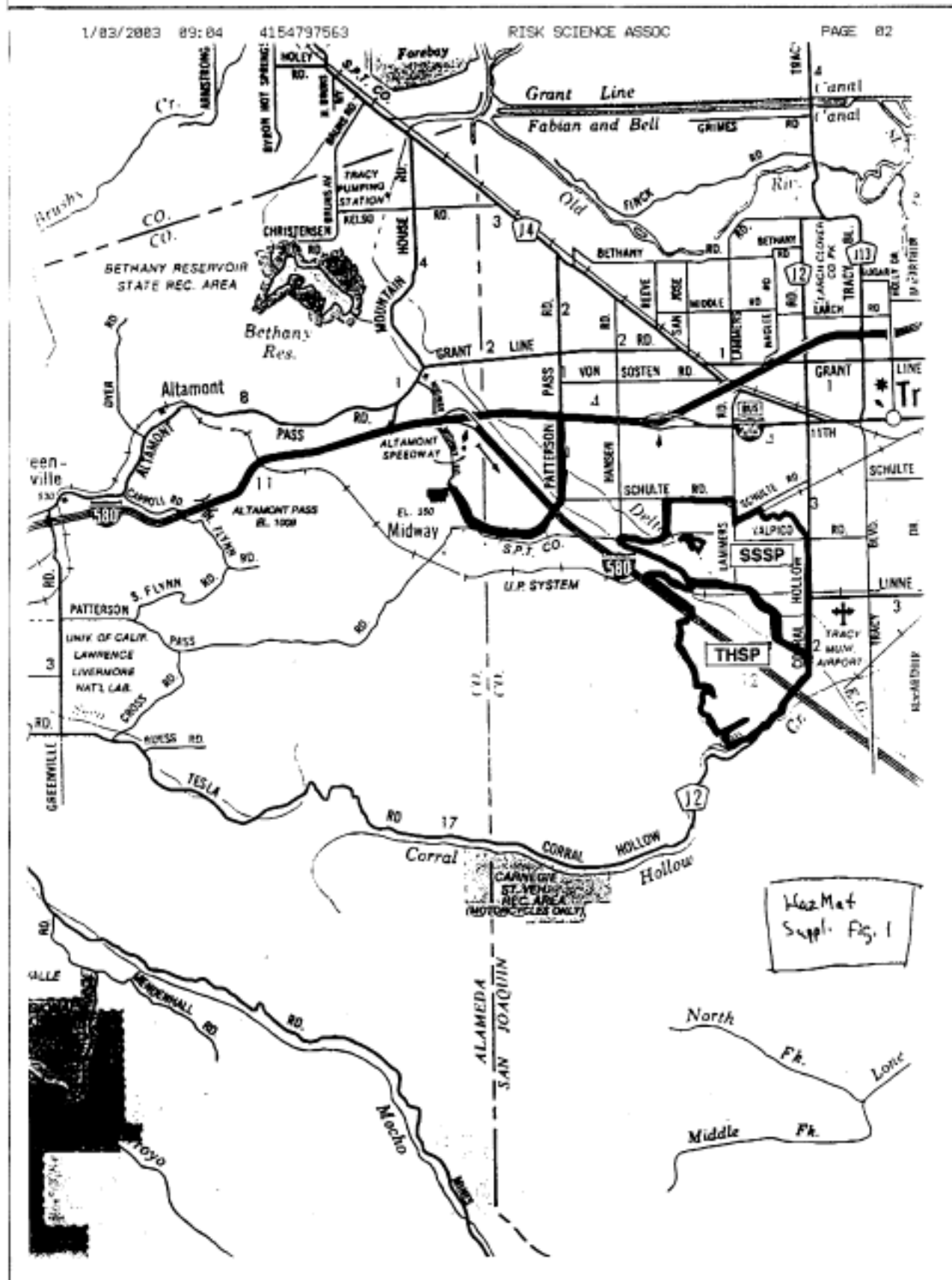
California Department of Transportation (Caltrans) 2003. Facts and Tips on driving during fog, California Central Valley.

National Weather Services (NWS), 2003a. Personal communications with the Reno office of the Western Region Climate Center, September 12, 2003.

National Weather Services (NWS), 2003b. Personal communications with the Sacramento office September 12, 2003.

National Weather Services (NWS), 2003c. Definition of Dense Fog Advisory from their web site glossary at [www.wrh.noaa.gov](http://www.wrh.noaa.gov).

# HAZ/MAT FIGURE #1





# LAND USE

## Supplemental Testimony of Eileen Allen

**BACKGROUND:** Alameda County is currently in the initial stages of forming an agricultural land trust for purposes of agricultural land and open space preservation. Prior to the start of construction, if the Alameda County land trust is not adequately formed such that it could receive funds for purchase of land or conservation easements, the project owner shall provide funds to the American Farmland Trust or a similar agricultural land trust to be approved by the CPM. These funds shall be sufficient to purchase 100 acres of grazing land comparable in quality (as determined by the CPM after consultation with the Trust staff) to the 60 acres of grazing land to be converted to infrastructure use through construction of the TPP.

As discussed at the September 11, 2003 evidentiary hearing, staff has revised **Land 7** to provide the clarification requested by the Hearing Officer and Committee.

## CONDITIONS OF CERTIFICATION

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**LAND-7** The project owner shall submit an agricultural land conservation easement plan, consistent with **BIO-5**, subject to review by Alameda County, and the approval of the Compliance Project Manager (CPM). The intent and approach of the easement plan is to provide a deed restriction, and to purchase land development rights to establish a permanent agricultural land preserve that would mitigate for the loss of agricultural land. The plan shall describe the long-term management including funding, endowment, maintenance, and monitoring. The plan shall explain the project owner's off-site mitigation involving one or both of the following: 1) the purchase of a 100-acre agricultural conservation easement adjacent to the TPP plant site, with the easement then given to Alameda County for agricultural land conservation purposes; or 2) the project owner's payment of monies to a County of Alameda, or other land trust fund used for the purpose of purchasing agricultural mitigation land or easements.

Alameda County is currently in the initial stages of forming an agricultural land trust for purposes of agricultural land and open space preservation. Prior to the start of construction, if the Alameda County land trust is not adequately formed such that it could receive funds for purchase of land or conservation easements, the project owner shall provide funds to the American Farmland Trust or a similar agricultural land trust to be approved by the CPM. These funds shall be sufficient to purchase a minimum of 100 acres of grazing land comparable in quality (as determined by the CPM after consultation with the Trust staff) to the 60 acres of grazing land to be converted to infrastructure use through construction of the TPP.

Sixty (60) days prior to the start of construction, the project owner shall provide the CPM with the final agricultural conservation easement plan, which shall have a copy of any final agreement signed between the project owner and the County of Alameda, American Farmland Trust or other agency or non-profit organization that is publicly recognized and authorized to hold agricultural land conservation easements, for approval by the CPM. The project owner shall provide to the CPM, a copy of the executed agricultural conservation

easements and/or receipt for the payment of monies to an agricultural land mitigation trust account to demonstrate the applicant's fulfillment of their mitigation requirement.

# **PUBLIC HEALTH**

## Supplemental Testimony of Dr. Alvin Greenberg

**BACKGROUND:** As discussed at the September 18, 2003 Evidentiary Hearing, staff has provided revisions and clarifications to **Public Health-1**. Please use this condition in place of the **Public Health-1** in the FSA.

### **CONDITIONS OF CERTIFICATION**

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**Public Health-1** The project owner shall develop and implement a Cooling Water Management Plan to ensure that the potential for bacterial growth in cooling water is kept to a minimum. The Plan shall be consistent with either staff guidelines for the control of microbial growth in cooling water or with the Cooling Technology Institute Guidelines.

**Verification:** At least 60 days prior to the start of commercial operations, the Cooling Water Management Plan shall be provided to the CPM for review and approval.

# TRAFFIC AND TRANSPORTATION

Supplemental Testimony of Eileen Allen

**BACKGROUND:** In response to Committee questions and discussion at the September 11, 2003 evidentiary hearing, staff offers the following revisions to the FSA text and the Conditions of Certification for Traffic and Transportation. These revisions replace all Traffic and Transportation Conditions previously proposed by Staff.

Recent review of the Impacts discussion regarding the width of Midway Road indicated the need for additional clarifying wording as follows:

**FSA p.4.9-10**, beginning with Line 5, the sentence should read:

To ensure public safety, a condition of certification has been proposed requiring the project owner to install a traffic deceleration lane, a related northbound left turn storage lane, and additional pavement as needed, for traffic on Midway Road (see Condition of Certification **TRANS-6**).

**FSA p.4.9-10**, Line 2, delete the text reference to TRANS-9, because staff has placed the intent and concepts of TRANS-9 in TRANS-1.

**FSA p.4.9-15**, under MITIGATION, the following measure should be added:

- Installation of a traffic deceleration lane, a related northbound left turn storage lane, and additional pavement as needed at the new intersection of the project driveway and Midway Road;

**FSA p.4.9-16**, paragraph 2, delete the text reference to TRANS-9, because staff has placed the intent and concepts of TRANS-9 in TRANS-1.

## CONDITIONS OF CERTIFICATION

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**TRANS-1** The project owner shall develop a construction traffic control plan that limits peak hour construction-period truck and commute traffic in coordination with the Alameda County Public Works Agency, San Joaquin County Public Works Department, and the City of Tracy Public Works staff. The project owner shall also consult with Alameda and San Joaquin County, and the City of Tracy staff dealing with traffic regulation enforcement, and the California Highway Patrol to develop measures intended to minimize speeding by construction-related vehicles. Specifically, the overall traffic control plan shall include the following:

- Verbal and written instructions to construction workers and related suppliers intended to raise awareness of existing speeding problems on area roadways.
- Require the EPC and major subcontractors to develop and implement a construction employee carpool program;
- Through worker education and shift scheduling, maximize worker commute trips during off-peak hours (off-peak hours are (1) before 6:00 AM; (2)

between 9:00 AM and 4:00 PM; and (3) after 6:00 PM) or other hours as agreed to by the CPM;

- Schedule heavy vehicle equipment and building material deliveries, as well as the movement of materials and equipment to the site, including the adjacent laydown area to occur during off-peak hours (off-peak hours are (1) before 6:00 AM; (2) between 9:00 AM and 4:00 PM; and (3) after 6:00 PM) or other hours as agreed to by the CPM. Equipment and materials delivery occurring on private roads in the site vicinity with no public traffic would not have peak-hour restrictions.; and
- an assessment of the need for, and design of turning movement studies at the intersections of 1) Midway Road at Grantline Road, and 2) Altamont Pass at Grantline Road, followed by a determination of the need for temporary traffic controls (e.g. traffic signals or flagperson) at these intersections.

The construction traffic control and transportation demand management program shall also include the following restrictions on construction traffic addressing the following issues for linear facilities:

- Timing of water and gas pipeline construction (all pipeline construction affecting local roads shall take place outside the peak traffic periods to avoid traffic flow disruptions) or other hours as agreed to by the CPM;
- Signing, lighting, and traffic control device placement,
- Temporary travel lane closures and potential need for flagmen;
- Maintaining access to adjacent residential and commercial properties; and
- Emergency access.

**Verification:** At least 60 days prior to start of ground disturbance, the project owner shall provide to Alameda County and San Joaquin County, the City of Tracy, and the California Highway Patrol for review and comment and to the CPM for review and approval, a copy of their construction traffic control plan.

**TRANS-2** The project owner shall comply with California Department of Transportation (Caltrans) and other affected jurisdictions' limitations on vehicle sizes and weights. In addition, the project owner or their contractor shall obtain necessary transportation permits from Caltrans and all relevant jurisdictions for roadway use.

**Verification:** In the Monthly Compliance Reports, the project owner shall submit copies of any oversize and overweight transportation permits received during that reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.

**TRANS-3** The project owner shall ensure compliance with Caltrans and other relevant jurisdictions' limitations for encroachment into public rights-of-way, and shall obtain necessary encroachment permits from Caltrans and all relevant jurisdictions.

**Verification:** In the Monthly Compliance Reports, the project owner shall submit copies of any encroachment permits received during that reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.

**TRANS-4** The project owner shall ensure that permits and/or licenses are secured from the California Highway Patrol and Caltrans for the transport of all hazardous materials, and that all federal and state regulations for the transport of hazardous materials are observed.

**Verification:** The project owner shall include in its Monthly Compliance Reports during construction and Annual Compliance Reports during operations copies of all permits and licenses required for the transport of hazardous materials.

**TRANS-5** Prior to the construction of the power plant and all related facilities, the project owner shall develop a parking and staging plan for all phases of project construction, to enforce a policy that all project related parking occurs on-site or in designated off-site parking areas.

**Verification:** At least 30 days prior to the start of site mobilization, the project owner shall submit the plan to the Alameda County Public Works staff for review and comment, and to the CPM for review and approval. The material submitted to the CPM shall include documentation of the County's review and comments. Monthly Compliance Reports submitted to the CPM shall describe the project owner's actions to ensure that this condition is being met.

**TRANS-6** The project owner shall fund and install a 150-foot left-turn lane for northbound traffic, and a 150-foot right-turn deceleration lane for southbound traffic on Midway Road at the construction access intersection that will be accomplished with additional pavement as needed.

**Verification:** At least 60 days prior to site mobilization, the project owner shall submit its plans for installation of a 150-foot northbound left-turn lane, a 150-foot right-turn, southbound deceleration lane on Midway Road, and additional pavement as needed, to the Alameda County Public Works Agency staff for review and comment, and to the CPM for approval. The project owner shall include photographs or videotape of affected roadways prior to construction of lanes.

Prior to pouring foundations, the project owner shall submit to the CPM notification that the installation of the northbound left-turn lane southbound right-turn deceleration lane, and any additional pavement required have been completed.

**TRANS-7** Prior to the beginning of site mobilization activities, the project owner shall prepare a road mitigation plan for any roads affected by oversize or overweight vehicles and/or underground pipeline construction, to the Alameda County Public Works Agency, the San Joaquin County Public Works Department, the City of Tracy Public Works Agency, and the CPM. The intent of this plan is to insure that any roads affected by oversize or overweight vehicles and/or underground pipeline construction will be repaired and reconstructed to original or as near original condition as possible. This plan shall:

- Document the pre-construction condition of the affected roads in the region of the site (i.e., Midway and Patterson Pass) and those along the pipeline route (i.e., Midway, Patterson Pass, Arbor, Tracy, Corral Hollow, Naglee, Middle,

San Jose, and Grant Line Roads) with photographs or videotape of the affected roads.

- Document any portions of roads that may be inadequate to accommodate oversize or large construction vehicles, and complete remediation measures that are necessary;
- Provide appropriate bonding or other assurances to insure that any damage to a road due to construction activity will be remedied by the project owner;
- Relocate utility poles if necessary, to insure that adequate clear zones are established along the property frontage; and
- Reconstruct portions of roads that are affected by the installation of underground utilities.

**Verification:** At least 90 days prior to the start of site mobilization, the project owner shall submit a road mitigation plan to Alameda County for review and comment and to the CPM for review and approval.

At least 90 days prior to the start of pipeline construction, the project owner shall submit a separate road mitigation plan to San Joaquin County and the City of Tracy for review and comment and to the CPM for review and approval.

**TRANS-8** The HRSG stacks shall have the lighting and markings required by the Federal Aviation Authority (FAA) so that the stacks do not create a hazard to air navigation. The project owner shall submit to the FAA Form 7460-1, Notice of proposed Construction or Alteration and supporting documents on how the project plans to comply with stack lighting and marking requirements imposed by the FAA.

**Verification:** At least 30 days prior to the start of construction, the project owner shall provide copies of the FAA Form 7460-1 with copies of the response to Form 7460-1, to the CPM and the Alameda County Public Works Agency.

# WORKER SAFETY AND FIRE PROTECTION

Supplemental Testimony of Dr. Alvin Greenberg

**BACKGROUND:** As discussed and agreed to at the September 10, 2003 Evidentiary Hearing, staff has included the following Condition of Certification for Worker Safety and Fire Protection.

Staff has found that the potential for both work-related and non-work related heart attacks exists at power plants. In fact, staff's research on the frequency of EMS response to gas-fired power plants shows that many of the responses for cardiac emergencies involved non-work related incidences, including visitors. The need for prompt response within a few minutes is well documented in the medical literature. Staff finds that the quickest medical intervention can only be achieved with the use of an on-site cardio-converter; the response from an off-site provider would take longer regardless of the provider location. This fact is also well documented and serves as the basis for many private and public locations (e.g., airports, factories, government buildings) maintaining on-site cardiac defibrillation devices (Cummins 1987, Marengo 2001). Staff thus finds that with the advent of modern cost-effective cardiac defibrillation devices, it is proper in a power plant environment to maintain such a device on-site in order to convert cardiac arrhythmias resulting from industrial accidents or non-work related causes. Therefore, **WORKER SAFETY-3** is added that would require a portable automatic cardiac defibrillator be located on site.

**WORKER SAFETY-3** The project owner shall ensure that a portable automatic cardiac defibrillator is located on site during construction and operation and that the appropriate staff has been trained, as per the manufacturer's recommendations in its use.

**Verification:** At least 30 days prior to the start of site mobilization the project owner shall submit to the CPM proof that a portable automatic cardiac defibrillator exists on site and the appropriate training for its use has been completed.

**BACKGROUND:** The Hearing Officer requested that the table of fire response times contained in the Worker-Safety/Fire Protection section of Staff's Second Addendum (docketed September 2, 2003) be revised to reflect testimony given at the September 10, 2003 evidentiary hearing. Tracy Fire Department Battalion Chief Larry Fragoso has indicated that a new fire station (TFD Station # 98) is planned to be located in the new Mountain House community at 911 Mascot Road. This location is roughly 6 miles from the Tesla site and would have a response time of approximately 10 minutes. When built, staffing will consist of 3 personnel, one of which will be a certified paramedic. Construction is planned to commence in early 2004 but the estimated completion date is not known at this time. However, starting in January 2004, two additional firefighters and an additional engine will be housed in TFD's existing Station 94 (located on Schulte Road) and would respond to the Mountain House area until Station 98 is completed. When completed, both stations 98 and 94 would be able to respond to the Tesla site.



<b>Station</b>	<b>Distance to Tesla</b>	<b>Response Time</b>	<b>EMT</b>
Alameda County Fire Dept. Station No. 8 Livermore	via back road – 14.7 mile via I-580 – 15.5 miles	20 minutes 20 minutes	EMT - 3 paramedics
Alameda County Fire Dept. Station No. 8 <b>(new location on Greenville Road if EAEC is built)</b>	via back road – 10.3 mile via I-580 – 14.3 miles	14 minutes 17 minutes	
Alameda County Fire Dept. Station No. 4 Castro Valley <b>Hazmat Response</b>	via I-580 – 31.8 miles	30 minutes	EMT – 3 paramedics
Tracy Fire Department Station No. 94 Schulte Road Tracy, CA	3.8 miles	5 minutes	EMT - 1
Tracy Fire Department Station No. 98 911 Mascot Road Tracy, CA <b>(planned construction)</b>	6 miles	10 minutes	1 paramedic 2 EMTs
CDF Station No. 26 Schulte Road Tracy, CA (staffed 5/15 to 11/15)	3.8 miles	5 minutes	EMT - 1

## REFERENCES

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- Cummins, R.O. et al. 1987. "Automatic External Defibrillators Used by Emergency Medical Technicians. A controlled clinical trial." The Journal of the American Medical Association, Vol. 257 No. 12, March 27, 1987.
- Marenco, John P. et al. 2001. "Improving Survival From Sudden Cardiac Arrest." The Journal of the American Medical Association, Vol. 285 No. 9, March 7, 2001.